

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,134	05/31/2001	Scott C. Johnson	SURG:158	2124
7590	08/06/2004		EXAMINER	
Richard D. Egan O'KEEFE, EGAN & PETERMAN Building C, Suite 200 1101 Capital of Texas Highway South Austin, TX 78746			PATEL, NIKETA I	
			ART UNIT	PAPER NUMBER
			2182	
DATE MAILED: 08/06/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/871,134	JOHNSON ET AL.	
	Examiner	Art Unit	
	Niketa I. Patel	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 May 2004.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 133-214 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 133-214 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 31 May 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/1/02 ; 07/21/02</u>	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 133, 134-145, 147-150 and 152-214 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-32, 71-100 and 115-132 of copending Application No. 09/797,413. Although the conflicting claims are not identical, they are not patentably distinct from each other because they recite system, means or steps that are substantially the same and that would have been obvious to one of ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001.)

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United

Art Unit: 2182

States and was published under Article 21(2) of such treaty in the English language.

5. Claims 133-214 are rejected under 35 U.S.C. 102(e) as being anticipated by Krause U.S. Patent Number 6,718,392 (hereinafter referred to as "*Krause*".)

6. **Referring to claim 133,** *Krause* teaches a data storage system, comprising: at least one system processor comprising a storage processor [see figure 1 - element 52]; a system interface connection configured to be coupled to a network [see figure 1 - elements 46, 36]; at least one network processor, the network processor coupled to the system interface connection to receive data from the network [see figure 1 - elements 42, 36, 38]; and an interconnection between the system processor and the network processor so that the network processor may analyze data provided from the network and process the data at least in part and then forward the data to the interconnection so that other processing may be performed on the data within the system so that storage system functionality may be accomplished [see column 4 - lines 49-67 and column 5 - lines 1-34.]

7. **Referring to claims 134, 186,** *Krause* teaches further comprising an application processor [see figure 1 - element 44.]

8. **Referring to claims 135, 156, 163,** *Krause* teaches wherein the system comprises a plurality of system processors configured

Art Unit: 2182

as an asymmetric multi-processor system [see figure 1 -- element 30 and column 4 - lines 13-24.]

9. Referring to claims 136, 154, 161, 168, 175, 179, 189,

Krause teaches wherein the system comprises a plurality of processors communication in a peer to peer environment [see figure 1 - elements 44, 42 and column 9 - lines 23-35.]

10. Referring to claims 137, 155, 162, 171, 180, 185, 195, 137,

Krause teaches wherein the plurality of processor comprises the network processor and the system processor [see figure 1 - elements 44, 42, 52.]

11. Referring to claims 138, 173, 188, 193, 194, Krause teaches wherein the plurality of processors comprises the network processor and multiple system processors [see figure 1 - elements 44, 42, 52.]

12. Referring to claims 139, 158, 178, 139, Krause teaches wherein the multiple system processors comprises a storage processor and an application processor [figure 1 - elements 44, 42, 52.]

13. Referring to claims 140, 157, 169, 176, Krause teaches wherein the interconnection comprises a distributed interconnection [figure 1 - elements 36 42 and column 4 - lines 13-24.]

Art Unit: 2182

14. **Referring to claims 141, 165, 170, 177, 190, 191,** Krause teaches wherein the distributed interconnection comprises a switch fabric [figure 1 - element 36.]

15. **Referring to claim 142,** Krause teaches wherein the interconnection comprises a distributed interconnection [figure 1 - elements 36 42 and column 4 - lines 13-24.]

16. **Referring to claim 143,** Krause teaches wherein the distributed interconnection comprises a switch fabric [figure 1 - element 36.]

17. **Referring to claim 144,** Krause teaches further comprising a storage device coupled to the storage processor [see figure 1 - element 52.]

18. **Referring to claim 145,** Krause teaches wherein the interconnection comprises a switch fabric [figure 1 - element 36.]

19. **Referring to claim 146, 151,** Krause teaches further comprising a storage device coupled to the storage processor [see figure 1 - element 33, 'RAID Subsystem'.]

20. **Referring to claims 147, 164,** Krause teaches wherein the network processor filters data incoming to the data storage system from the network [see column 4 - lines 49-67 and column 15- lines 41-67 and column 16 - lines 1-6.]

Art Unit: 2182

21. **Referring to claim 148,** Krause teaches the network processor enabling accelerated system performance [see column 4 - lines 49-67.]

22. **Referring to claims 149, 159,** Krause teaches the data storage system being a content delivery system [column 4 - lines 49-67.]

23. **Referring to claims 150, 160, 166,** Krause teaches the data storage system providing accelerated content delivery [column 4 - lines 49-67.]

24. **Referring to claim 151,** Krause teaches further comprising a storage device coupled to the storage processor [see figure 1 - element 33, 'RAID Subsystem'.]

25. **Referring to claim 152,** Krause teaches a method of operating a data storage system, the method comprising: providing a network processor within the data storage system [see figure 1 - elements 42, 36, 38], the network processor being configured to be coupled to an interface which couples the data storage system to a network [see figure 1 - elements 42, 36, 38, 38]; processing data passing through the interface with the network processor [see column 4 - lines 49-67 and column 5 - lines 1-34]; and forwarding data from the network processor to a system processor which then performs at least some data

Art Unit: 2182

storage system functionality upon the data [see column 4 - lines 49-67 and column 5 - lines 1-34.]

26. **Referring to claim 153,** Krause teaches wherein the network processor analyzes headers of data packets transmitted to the data storage system from the network [see column 4 - lines 49-67 and column 5 - lines 1-34.]

27. **Referring to claim 167,** Krause teaches a method of providing a data storage system through the use of a network connectable computing system, comprising: providing a plurality of separate processor engine, the processor engines being assigned separate task in an asymmetrical multi-processor configuration [see figure 1 - elements 44, 52, 42 and column 4 - lines 13-24]; providing a storage processor engine, the storage processor engine being one of the plurality of separate processor engines [see figure 1 - element 52]; providing a network interface connection to at least one of the processor engines to couple the data storage system to a network [see figure 1 - elements 42, 36, 38]; providing a storage interface connection to the storage processor engine to couple the storage processor engine to storage device [see figure 1 - element 33, 'RAID']; and accelerating content delivery through the data storage system [column 4 - lines 49-67.]

Art Unit: 2182

28. **Referring to claims 172, 174, 198, 199, 201, 202, Krause**
teaches further comprising performing look ahead processing
within the network processor to off-load processing tasks from
the other processor engines [column 4 - lines 49-67.]

29. **Referring to claims 180, 181, Krause** teaches further
comprising tracking system performance within the system
management processor engine [see figure 1 - element 34b, 'host
processor' and column 4 - lines 40-67.]

30. **Referring to claims 183, 197, Krause** teaches a network
connectable content delivery system, comprising: a first
processor engine [see figure 1 - elements 44, 52, 42 and column
4 - lines 13-24]; a second processor engine, the second
processor engine being assigned types of tasks different from
the types of tasks assigned to the first processor engine [see
figure 1 - elements 44, 52, 42 and column 4 - lines 54-67 and
column 4 - lines 1-30]; a storage processor engine, the storage
processor engine being assigned types of tasks that are
different from the types of tasks assigned to the first and
second processor engines, the storage processor engine being
configured to be coupled to a content storage system [see figure
1 - element 52]; and a distributed interconnection coupled to
the first, second and third processor engines, the tasks of the
first, second and third processor engines being assigned such

that the system operates in staged pipeline manner through the distributed interconnection, wherein at least one of the first or second processor engines performs system management functions so as to off-load management functions from the other processor engines [see figure 1 - elements 36 42 and column 4 - lines 13-24, 54-67.]

31. **Referring to claims 184,** Krause teaches wherein the system performs at least some network endpoint functionality [see figure 1 - elements 44, 42 and column 9 - lines 23-35.]

32. **Referring to claims 187,** Krause teaches wherein at least one of the first, second or storage processor engines comprises multiple processor modules operating in parallel [see column 10 - lines 40-54.]

33. **Referring to claims 203, 209,** Krause teaches wherein the system management functions comprise prioritizing data flow through the system [see column 17 - lines 4-10.]

34. **Referring to claims 204, 210,** Krause teaches wherein the system management functions comprise quality of service functions [see column 12 - lines 31-43.]

35. **Referring to claims 205, 211,** Krause teaches wherein the system management functions comprise service level agreement functions [see column 4 - lines 49-67 and column 15 - lines 41-67 and column 16 - lines 1-6.]

Art Unit: 2182

36. **Referring to claims 206, 212,** Krause teaches wherein the system management functions comprise filtering content requests [see column 4 - lines 49-67 and column 15 - lines 41-67 and column 16 - lines 1-6.]

37. **Referring to claims 207, 213,** Krause teaches wherein the first processor engine is a system management processor engine that performs the filtering functions [see column 4 - lines 49-67 and column 15- lines 41-67 and column 16 - lines 1-6.]

38. **Referring to claims 208, 214,** Krause teaches wherein the first processor engine is a network interface processor engine that performs the filtering functions, the network interface processor engine comprising a network processor [see column 4 - lines 49-67 and column 15 - lines 41-67 and column 16 - lines 1-6.]

Conclusion

39. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents have been made record of to further show the state of the art as it pertains to networked storage devices:

Singhal et al. U.S. Patent Number: 6,658,478

Neal et al. U.S. Patent Number: 6,766,467

Art Unit: 2182

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Niketa I. Patel whose telephone number is (703) 305 4893. The examiner can normally be reached on M-F 8:00 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (703) 308 3301. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NP
07/23/2004



JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100